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# AGRICULTURAL HISTORY

April, 1934

The South in Our Times

*Herman Clarence Nixon*

Grasshopper Plagues and Early Dakota  
Agriculture

*Harold E. Briggs*

Source Literature of Early Plant Introduc-  
tion into Spanish America

*George W. Hendry*



Published Quarterly

*by*

THE AGRICULTURAL HISTORY SOCIETY

# AGRICULTURAL HISTORY

Published Quarterly by the Agricultural History Society

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AGRICULTURAL HISTORY is designed as a medium for the publication of research and documents pertaining to the history of agriculture in all its phases and as a clearing house for information of interest and value to workers in the field. Materials on the history of agriculture in all countries are included, and also materials on institutions, organizations, and sciences which have been factors in agricultural development.

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# AGRICULTURAL HISTORY

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## THE SOUTH IN OUR TIMES<sup>1</sup>

H. CLARENCE NIXON

The "New South" has passed from quotation marks into eclipse, with a tentative admission of the paradoxical advantage of backwardness. It has moved out of the mud into the red and is willing to exchange the shibboleth of States' rights for any three letters of the endowed alphabet.

In spite of the boasting about industrialism and in spite of the increasing rôle of industrialists in the public affairs of the South from 1875 to 1929, this section remained essentially agrarian in population, occupation, outlook, and consciousness. But by 1928 it was rather rapidly picking up an industrial spirit and viewpoint, yielding to an industrial invasion and an industrial revolution. In other papers,<sup>2</sup> I have pointed out that Herbert Hoover, the industrialist, carried the new centers such as Houston, Dallas, Birmingham, Atlanta, and Chattanooga in 1928, while Alfred E. Smith carried such old centers as Galveston, San Antonio, New Orleans, Mobile, Montgomery, Savannah, and Charleston, though one might say that the per capita consumption of liquor and religion was about the same in the old and in the new centers. Industrial-mindedness was the differentiating factor. But since there was no industrial Santa Claus, the whole South slid back into an agrarian consciousness by 1932 and voted solidly for the Georgia farmer-New York governor, who also knew how to harvest votes in the West. It did not have far to slide and did not have to meet such serious jolts to the ways of life

<sup>1</sup> An address presented at the luncheon conference of the Agricultural History Society on the occasion of the concurrent meeting of the various historical societies at Urbana, Illinois, on December 28, 1933.

<sup>2</sup> "The Changing Political Philosophy of the South," in the American Academy of Political and Social Science, *Annals*, 153:246-250 (January, 1931); "The Changing Background of Southern Politics," in *Social Forces*, 11:14-18 (October, 1932).

as did the regions of the Middle West. Its backwardness had kept down farm mortgages, and it is estimated today that two-thirds of Southern farm lands by area or three-fourths by value are free from mortgage.<sup>3</sup> There were wonderful shock absorbers for the depression in the share-cropper tenant farmers, who lost several years of their slow advance in their low standard of living without making themselves heard.

The South, in prosperity or depression, has a combination of regional problems which have been developing over recent years and which deserve urgent attention. In the transformation and partial industrialization of agriculture, the Southeast has not kept pace with the Southwest. Cotton acreage and production expanded extensively in the Southwest at the expense of the Southeast in the nineteen-twenties, with Arkansas coming closer to Texas in the ranking and Georgia leading the Southland in the reduction of acreage and the abandonment of farm lands, showing an estimated abandonment of more than three million acres. During this decade people were tending to leave hilly lands, while on the other hand there was a rapid spread of mechanized farming on the Western Plains where agriculture was somewhat a matter of long furrows and a sedentary occupation. The hills cannot compete with the plains in the large-scale use of expensive farm machinery. Texas increased cotton acreage in the twenties about twice as fast as Georgia decreased it, and some of the red old hills of Georgia became inadequate to support crops either of cotton or county politicians, with consequent demands for the reorganization of agriculture and local government. Incidentally, the migration from the rural regions of Georgia to Florida and other States was sufficient to hold the Georgia population practically at a standstill between 1920 and 1930, in spite of a heavy natural increase.

While the Southwest was gaining on the Southeast in the cotton economy, the white population was gaining on the Negro population in the general agricultural rôle. The increases in farm populations were often predominantly white, while many commu-

<sup>3</sup> Gus W. Dyer, "Dangers of Radical Inflation," in the *Southern Agriculturist* 63 (11):4 (November, 1933).

nities with declining farm population reflected a large decrease in Negro population. At the same time there were distinctly white communities among the rural hills reflecting net losses through migration to level fields from which Negroes were moving to urban centers, near or distant. A Georgia experiment station study shows that between 1910 and 1925 certain counties in that State lost from sixty to seventy-five percent of their Negro farmers.<sup>4</sup> Between 1920 and 1930, Georgia and South Carolina lost one-third of the farms operated by Negroes, reversing the tendency prior to the World War, while Negro farm owners in general have had less success than white owners in the struggle to prevent forced sales for debts or taxes in the period of depression.

The rural State of Mississippi lost in Negro population between 1910 and 1920, while between 1920 and 1930 the number of whites caught up with the number of Negroes. Many highland whites came down to the Delta region of that State to locate on more productive soil, adopt newfangled machinery, and supplant the Negro farm population. Bolivar County, in the Delta, increased its number of white farmers nearly threefold between 1920 and 1930. These shifts do not mean a decrease in farm tenantry in the South, but an increase particularly in the proportion of white tenants. The proportion of tenant farmers ranges above sixty percent in a few Southern States, including Georgia, South Carolina, and Mississippi. It is also true of this section that share croppers "formed more than four tenths of all tenant farmers in 1930—about one third of the white tenants and considerably more than one half of the colored tenants."<sup>5</sup>

The Southern hills, with low incomes and high birth rates, have also been an important source of labor for the textile mills which have been coming South to find individualistic "Anglo-Saxon" workers. From independent mountain farms, it seems,

<sup>4</sup> Conference on Unemployment, Washington, D. C., 1921, Committee on Recent Economic Changes, *Recent Economic Changes in the United States; Report of the Committee on Recent Economic Changes, of the President's Conference on Unemployment . . .*, 2:573 (New York, 1929).

<sup>5</sup> Leon E. Truesdell, "Farm Tenancy; United States," in the *Encyclopaedia of the Social Sciences*, 6:123 (New York, 1931).

not a few laborers of stamina have come, and it is significant but natural that the labor elements from this source have been the most active in staging textile strikes in the last few years, though working in districts where wages were relatively high for the South. In the mill villages of the lower South, however, where wages have often been lower than in the uplands of Virginia and North Carolina, a larger proportion of the white labor has been drawn from tenant farm families and has tended to be more docile. During the depression much of this textile and other industrial labor has been thrown back into the rural hills to increase the ranks both of the tenant and marginal independent farmers, with a resulting importation of Western mules and the tilling of lands only recently abandoned. The families of such migratory farmers at times live in barren shanties, from which one might study astronomy through the roof and geology through cracks in the floor.

The depression conditions which have brought about this back-to-the-farm movement have tended to disturb the general labor relations between the races in the South. The Negroes have fared rather worse than the whites in local relief and in the distribution of jobs under the National Recovery Administration, though fortunately, they are getting a square deal in the dispensing of Federal relief, both through the Emergency Relief Administration and Civil Works Administration. Federal relief may tend to check the recent increase of pellagra and illegitimacy among Southern Negroes.

Southern agriculture is directly or indirectly the basis, in the supply of raw material or in the rôle of consumption, of most of the manufacturing which has developed in the South, such as cotton textiles, cottonseed-oil milling, tobacco manufacturing, sugar refining, the mixing of commercial fertilizers, and, in part, the manufacture of lumber, especially by many small migratory sawmills. Nearly all of this manufacturing is low-stage or coarse-stage processing, with relatively low value added to the product by manufacturing. Much of the cotton-yarn milling, for instance, is a comparatively low addition to an agricultural value for shipment to New England, where the final processing takes place.

The South performs a relatively large part of that kind of manufacturing which is mainly dependent on cheap labor.<sup>6</sup> There may be other reasons for cheap labor, as in the recent lumber code for the South. This code allows a minimum wage of twenty-four cents an hour, in comparison with forty-two cents for the Pacific Northwest, the grounds for the differential being the limited use of machinery in Southern logging and sawmilling because of small mills, small trees, and small patches of timber. Another reason not emphasized by the Southern Pine Association may be the weakness or lack of labor organizations in this industry.

Southern industry can hardly begin to absorb the released man-power, if a restrictive policy of agriculture is to be definitely adopted, unless a drastic reorganization of the whole economy is effected. Texas, more than the Southeast cotton section, seems to have been turning eyes toward foreign markets and noting the serious decline in exports, especially cotton, in the last four years. The Houston Cotton Exchange has issued a resolution favoring termination of the intergovernmental debts as a method of stimulating foreign consumption of cotton. The *Texas Weekly*, edited by Peter Molyneaux of Dallas, has been preaching vigorously and constantly for months and years for a disposition of the debt question and all other problems which seem to stand in the way of foreign trade. Molyneaux, who uses comparative statistics so eloquently that he has been called "Per Capita Pete," points out that Texas exports in former days of prosperity ran far ahead of those of New York on a per capita basis, and, furthermore, that Texas cannot raise or maintain a standard of living in the face of excessive declines in farm exports. Increase in consumption, not decrease in production, is his gospel, and he branded the original proposal to take about one-fourth of the cotton land out of cotton production as a landlord's code, destined to displace two hundred thousand tenant families, embracing a total population of approximately one million. He has support from observers who fear that a restrictive policy will only result in an increase in the production of non-American cotton, as during the Civil War when the world's supply of American cotton

<sup>6</sup> Clarence Heer, *Income and Wages in the South* (Chapel Hill, 1930).

was limited, though experts note that it may take more than two years for the world, particularly Brazil, to offset any American restriction.

However, the hilly cotton region east of the Mississippi must take restriction more seriously, for if not government restriction, there is the Texas competition, with a production per man (regardless of the production per acre) far above that of the Southeast. The Tennessee Valley venture is an experiment in planning and balancing a regional economy in a section where farmers cannot generally hold their own with the West and where there have not been adequate non-agricultural pursuits for the released farm population, even in prosperous times. A general agricultural reform is also under way in the Eastern Cotton Belt, not only as to scientific farming, but in rural economy and politics in the broad sense. Recognizing that economic laws or trends are at work on Southern farms, subscribers have rallied to the support of an agricultural press with a boost rather than a decline during the depression. This interest suggests the agricultural reform in Virginia led by Edmund Ruffin before the Civil War under the stimulus of the keen competition from the newer South of his day. One Southern agricultural paper, with subregional editions, has something like a million readers, while another has about three-quarters of a million, with a twenty-five thousand increase in the past year. Half a dozen others boast a circulation of one hundred thousand or more. These journals would have remained in economic clover, if the "Damn Yankees" had not cut down the advertising. They are an index of improved livestock, tick eradication, land and timber conservation, and currents of change now taking place in farm methods; they are spreading the teachings from Washington, D. C., and from the agricultural colleges and experiment stations; and they are lining up with some success for better organization of government administration in the South. They are vehicles of encouragement in the direction of social progress, and they clearly indicate that Southern agricultural reform, though it has a long road to travel, is at least on the way.

*Tulane University of Louisiana.*



## GRASSHOPPER PLAGUES AND EARLY DAKOTA AGRICULTURE, 1864-1876

HAROLD E. BRIGGS

Of the many serious obstacles that beset the pioneer farmers of Dakota Territory, periodic attacks of grasshoppers were probably the most disastrous. Even during the fur-trading period grasshoppers were a menace at times to the gardens and small cultivated fields about the forts and trading posts, and only by constant care and attention was it possible to defeat their destructive efforts.<sup>1</sup> In the summer of 1855 they were reported in larger numbers than usual by the various forts and Indian agencies in the Dakota area. They came in great clouds from the north, remaining only long enough to devour the small crops and gardens and then continued southward. Although a few eggs were hatched in the spring of 1856 no grasshoppers came in the summer and autumn.<sup>2</sup>

While agriculture was pursued in a small way by early town-site settlers in the Big Sioux and Missouri valleys after 1857, there was no extensive farming in Dakota until the Indian lands between the Big Sioux and Missouri rivers were opened to settlement in 1859 and an agricultural population began to occupy them.<sup>3</sup> The influx of settlers was quite rapid and the Territory of Dakota

<sup>1</sup> Grasshoppers were first reported in the Red River Valley in 1819-1820. Indian children with long willow boughs were often employed to keep watch and drive away the destructive insects. Doane Robinson, *Encyclopedia of South Dakota*, 10 (Pierre, S. Dak., 1925); "Fort Pierre Journal," *South Dakota Historical Collections*, 9:69-224, *passim*.

<sup>2</sup> "A History of Grasshoppers in Clay County," *Dakota Republican* (Vermilion), May 17, 1877. The females deposited eggs in the sod, and they were hatched early in the spring. As it took several days for the young grasshoppers to develop wings a great deal of damage could be done before they flew away. *Sioux City Journal*, May 14, 1855.

<sup>3</sup> *Sioux City Journal*, June 3, 1859; *Sioux Falls Democrat*, July 9, 21, Aug. 26, Nov. 8, 1859.

was created in March, 1861.<sup>4</sup> Although there was little actual fighting in Dakota, the outbreak of the Civil War and the Indian uprising of 1862 retarded further settlement for several years.<sup>5</sup>

During the first few years of settlement in Dakota, climatic conditions were generally favorable for agriculture and little care or effort was necessary to produce good crops. The fields were not large, a few acres usually being broken with oxen by each pioneer farmer and planted to vegetables, sod corn, and wheat. The crops were raised primarily for home consumption as both transportation connections and local markets were lacking. As time went on, however, new fields were broken and a considerable amount of wheat was planted. The crop of 1862 was bountiful and was harvested in spite of Indian difficulties. The following season was one of severe drouth, resulting in a complete failure. Hay could be obtained only in the large sloughs and the farmers of Dakota were compelled to drive for miles in order to obtain food for their cattle during the winter months.<sup>6</sup> Crops were planted in the spring of 1864 and although the season was dry, the prospects were favorable until the last part of July when grasshoppers came in great numbers from the north and devoured everything raised on the farms.<sup>7</sup>

Accounts of settlers reveal the seriousness of the raids of 1864. G. C. Moody, whose farm was near Yankton, the territorial capital, tells of the attack upon a field of promising corn, the ears of which were beginning to form. "The grasshoppers invaded the field like a living river pouring upon it. They literally covered the corn. The stream stretched away to the south and west as far as one could see in either direction and the flutter of their wings created a roaring noise that was almost deafening. Not a ten-thousandth part of the stream lighted in my field, but covered the country for miles and miles. They devoured the

<sup>4</sup> *U. S. Statutes at Large*, 12:139-140.

<sup>5</sup> *Yankton Weekly Dakotian*, July 6, Aug. 11, 1861; *Sioux Falls Argos Leader*, homecoming edition, June 17, 1919; *Official Records of the War of the Rebellion* (series 1), 13:6, 39-41 (Washington, D. C., 1880-1901).

<sup>6</sup> James S. Foster, *History of Dakota*, 26-27 (Yankton, 1869); *Sioux City Journal*, June 4, 1862, July 17, 1863.

<sup>7</sup> *Dakota Republican*, May 17, 1877.



tender leaves and newly formed ears of corn and never ceased their feast until the stalks were as bare as tent poles."<sup>8</sup>

A Yankton editor reporting the disaster said: "The insects came down at midday upon fields that gave promise of moderate harvests and gardens in fair condition. In a short time all were literally covered by myriads of the voracious insects which devoured and destroyed every green thing, even the leaves on the trees and the grass on the prairies. They ate holes in the family washings hanging in the open air and injured many of the tents in which newcomers had made their temporary homes. The insects remained all night and departed the next morning as abruptly as they came."<sup>9</sup>

General Alfred Sully, encamped between the Missouri and Yellowstone rivers during the summer of 1864, told of the hardships caused by the destructive insects in his report to headquarters at Washington. "The only thing spoken about here is the grasshopper. They are awful. They actually have eaten holes in my wagon covers and in the tarpaulins that cover my stores. A soldier on his way here lay down to sleep on the prairie in the middle of the day—the troop had been marching all night. His comrades noticed him covered with grasshoppers and awakened him. His throat and wrists were bleeding from the bites of the insects."<sup>10</sup>

In the spring of 1865 the eggs deposited the preceding year were hatched but the insects left about the first of June before serious damage could be done. While no small grain was sown, corn and potatoes were planted early in June and a splendid crop was raised. In 1866 much new land was broken and a good grain crop was harvested, but late in the summer another raid nearly destroyed in a single day what had promised to be the best corn crop yet produced in the Territory. Although some grasshoppers appeared at various times from 1867 to 1873 they were not a serious menace.<sup>11</sup>

<sup>8</sup> *Yankton Weekly Dakotian*, July 30, 1864; Foster, *Dakota*, 97-98.

<sup>9</sup> *Yankton Weekly Dakotian*, July 30, 1864.

<sup>10</sup> Report of General A. A. Sully to the Secretary of War, Aug. 13, 1864.

<sup>11</sup> *Dakota Republican*, May 17, 1877; Foster, *Dakota*, 29, 44, 98.

Hardship and privation for the Dakota farmer naturally followed the grasshopper attacks of the sixties. The life of the frontier farmer was of necessity one of hardship, the difficulties being generally increased because most of those who entered upon it were persons of limited means. Since a newly settled country is compelled to depend almost entirely upon farm products for its subsistence, crop failures were bound to render the pioneers destitute. Those who had lost their crops in 1864 were unable to obtain work and had nothing to sell and no feed for their stock during the winter months. As autumn approached the despondent farmers drove to the neighboring states of Nebraska, Iowa, and Minnesota to obtain supplies until another seed time. Corn bread became the staple article of food during the winter while burnt peas or wheat took the place of coffee, and meat, sugar, tea, lard, and wheat flour became luxuries that few could afford.<sup>12</sup>

On January 1, 1868 a territorial legislative committee on agriculture rendered a statistical report in which the low status of the Dakota farmer was shown. The largest area being cultivated by one settler was thirty acres and the main crops were oats, wheat, corn, and potatoes. While contributing causes for the agricultural depression of 1862 to 1868 were unfamiliarity with Dakota soil and climate, drouth, and crude farming methods, the primary cause was grasshopper raids.<sup>13</sup>

Little was done toward improving agriculture during those years, although the raising of stock was increased by the frontier settlers who found a ready market at the various forts and Indian agencies. During that period the question as to whether the soil and climate of Dakota were adaptable to agriculture was frequently and seriously discussed. The military authorities seemed to be in opposition to settlement, many of the more prominent officers openly advising the Dakota settlers to give up the land to the Indians. At this time Newton Edmunds, Governor of the Territory, did all he could to encourage the

<sup>12</sup> *Yankton Weekly Dakotian*, July 30, Aug. 14, 28, Sept. 4, 11, Oct. 4, Nov. 1, 8, 1864; *Sioux City Journal*, Aug. 20, 1919.

<sup>13</sup> *Territorial House Journal*, 1867-1868, p. 316-318.

settlers. In the face of all discouragements he continued to plow and sow his lands. He introduced livestock and put forth every effort to diversify his crops and encourage others to do likewise.<sup>14</sup>

The five-year period beginning in 1868 was one of good crops and general prosperity. After the excellent crops of 1868 were harvested glowing reports of the section were sent to the Eastern States. Real estate agents became active and Dakota was widely advertised. Prices of articles purchased by the farmer were not high, taxes were comparatively low, and his products brought a fair price. In 1868 Sioux City, Iowa, was connected with the East by rail and settlers came into the eastern section of Dakota in large numbers. Roads and bridges were constructed as Congress had been liberal in its appropriations. The period of boom and prosperity from 1868 to 1873 was followed by five years of hard times, one of the important causes being grasshopper attacks.<sup>15</sup>

While some locusts were reported in various portions of the Territory in 1871 and 1872 their attacks were scattered and little serious damage was done. The outlook for crops in 1873 was promising until late in July when grasshoppers appeared in large numbers in practically all the settled portions of the Territory. They destroyed the corn and gardens, but about two-thirds of the grain crop was saved. The prospects were good again in 1874 and the grain harvest had just begun when great clouds of the locusts arrived from the northwest and devoured the crops.<sup>16</sup>

An editor in southeastern Dakota describing the raids of 1874 said: "Harvesting had barely begun when on August sixth there appeared in the northwest a peculiar looking cloud. By four o'clock that afternoon it had gradually settled and millions of grasshoppers attacked the crops. Attempts were made to continue harvesting but the insects clogged the machinery. When

<sup>14</sup> *Sioux City Tribune*, Sept. 14, 1868; *Sioux City Weekly Journal*, Sept. 14, 1868; Foster, *Dakota*, 26, 27, 35.

<sup>15</sup> Stephen Sargent Visher, *The Geography of South Dakota . . .* [Report of the State Geologist, 1916-1918], 141-142 ([Vermilion, 1918]); G. W. Kingsbury, *History of Dakota Territory*, 1:504 (Chicago, 1915).

<sup>16</sup> *Dakota Republican*, May 17, 1877; *Yankton Press*, files for 1870-1874; *St. Paul Press*, files for 1870-1874; *Yankton Press and Dakotian*, Aug. 8, 1874.

night came they moved on leaving behind them a scene of desolation, broken hopes and saddened homes."<sup>17</sup> The farmers of northeastern Dakota suffered fully as much as those of the southeast. A St. Paul editor shows the seriousness of the situation: "A vast cloud of grasshoppers entered the state of Minnesota July fifteenth, coming from Dakota where the crops were completely destroyed. They crossed the Red River at Moorhead, (Minnesota), where the Northern Pacific bridge is located, moving in a southeasterly direction. The column extended from Moorhead to Mankato, a distance of 225 miles in a straight line, being reported almost simultaneously at all intervening telegraph stations. We can only wait to see what they will do here."<sup>18</sup>

The raids of 1873 and 1874 came at a very bad time for the farmers of Dakota, as the general panic of 1873 had brought to a close in the Territory a brief period of over-expansion in agriculture. With the entrance of the Dakota Southern Railroad into southeastern Dakota and the extension of the Northern Pacific from Grand Forks to Bismarck in the early seventies had come a period of rapid development.<sup>19</sup> Crops had been good for several years and the settlers had every reason to believe that they would continue to be so. A few years of prosperity tended to make many of the homesteaders overconfident and they took risks that they would have previously avoided. For several years the wheat yield had been large and the prices very satisfactory. Many farmers raised from 500 to 1,000 bushels and were occasionally able to dispose of it for more than a dollar per bushel. Although some attention was being given to corn, oats, and barley, and the raising of livestock, wheat was the most profitable crop and had become firmly established as the chief one.

<sup>17</sup> *Dakota Republican*, May 17, 1877.

<sup>18</sup> *St. Paul Press*, July 18, 1874.

<sup>19</sup> The effect of the railroad is shown in the rapid increase in the amount of farm products and in the value of land. There were 2,275,000 bushels of wheat raised in the Territory of Dakota in 1872 as compared to 170,460 bushels in 1870. All of this except 150,000 bushels was raised in southeastern Dakota. Improved land along the line of the Dakota Southern Railroad increased from \$8 to \$15 per acre in 1870, to \$15 to \$30 in 1872. The same kind of land ten to fifteen miles from the railroad sold for \$3 to \$8 per acre in 1872. *Clay County Register*, Nov. 7, Dec. 14, 1872; *Yankton Press and Dakotian*, Dec. 5, Jan. 3, Feb. 7, 1873.

One serious handicap to raising a large acreage of wheat at this time was that the old methods of planting and harvesting were tiresome and slow, and had become more wearisome as the acreage increased. There had been many improvements in farm machinery, especially in that used for harvesting and threshing grain, and their agents were numerous and active throughout the Territory. Many of the Dakota farmers, made reckless by continued prosperity, purchased the improved machinery despite the great expense,<sup>20</sup> often borrowing money and giving a mortgage on their land as security. The rates of interest were usually excessive and when the reverses due to panic and grasshoppers came, many of the hard-earned farm homes were lost by foreclosures and sheriff sales.<sup>21</sup>

Dakota and Minnesota however were not alone in the grasshopper misfortunes of 1874 as Iowa, Nebraska, Missouri, Kansas, and Colorado suffered also. The matter was sufficiently serious that the United States Government sent out an expert commission in the autumn of 1874 to investigate the problem. The commission passed through the southern portion of Dakota on its tour of investigation, a Yankton editor making the following comment: "The scientific gentlemen who came from Washington have been in the vicinity of the territorial capital for several days and have not slighted their investigation because of any personal privation they might be obliged to endure. They will visit the various Dakota settlements and will use the information gained in a report to Congress."<sup>22</sup>

The winter of 1874-75 was unusually severe with much stormy, cold weather and heavy snows. Fuel was scarce and expensive and many poor families were dependent upon prairie hay for heating their homes. During the fall and early winter many of

<sup>20</sup> When binders first appeared they sold for \$400 and were only reduced to \$350 by 1880. C. W. Thompson, "The Movement of Wheat Growing," *Quarterly Journal of Economics*, 18:576 (August, 1904).

<sup>21</sup> *Dakota Republican*, files for 1870-1875; *Yankton Press*, 1870-1873; *Yankton Press and Dakotian*, 1873-1876. The files of these papers for 1875 and 1876 are filled with notices of mortgages and sheriff sales.

<sup>22</sup> *Yankton Press and Dakotian*, Oct. 14, 1874; *U. S. Executive Documents*, 1875, 1:33-35.



the older and wealthier families were liberal with their aid and were able to supply the needy. But as the winter advanced, destitution became such a common condition that it became apparent that local resources would not be sufficient. Relief societies were formed in every organized county in southeastern Dakota and in many of those in the northeastern portion. The Dakota Southern Railroad organized its own special relief association which did excellent work. In January, 1875, a bill was introduced in the territorial legislature to provide seed grain and assistance to those in need. The bill provided for the immediate issue of \$25,000 in bonds running for ten years at 10 percent interest. Governor Pennington vetoed the bill on the ground that there was no warrant of law or precedent for the issuance of bonds for such a purpose. The bill was passed over the Governor's veto but no attempt was made to carry it into effect.<sup>23</sup>

The independence and pride of frontier communities is well brought out by the resentment shown in many Dakota counties toward the efforts of the legislature to aid those in want. An editorial appearing in a Clay County newspaper said: "The counties of the Territory of Dakota are neither bankrupt nor helpless and the publication of such a bill to the world is a libel and we enter our solemn protest against it. Does anyone pretend that Clay County is unable to care for its poor? Such an idea is simply ludicrous."<sup>24</sup> This statement shows spirit and courage, but it also indicates that many of the people and public officials of the Territory did not comprehend the extent of damage and destitution in the farming sections. Long before the winter was over they came to realize that ample help could not be provided by local relatives and friends and county relief. A territorial committee was named by the Governor to receive and distribute donations. The committee handled a considerable sum of money and large supplies of food and clothing. They distributed them judiciously and impartially, keeping an itemized record of receipts and disbursements.<sup>25</sup>

<sup>23</sup> *Territorial Session Laws*, 2:36; *Dakota Republican*, Jan 28, 1875; *Northern Pacific Times*, Jan. 14, 1875; *Fargo Daily Times*, Dec. 21, 1874.

<sup>24</sup> *Dakota Republican*, Jan 28, 1875.

<sup>25</sup> *Dakota Republican*, Feb. 18, 25, 1875.

The United States Government joined the relief forces during the winter and appropriated \$150,000 for the purchase of food for the destitute settlers. It was disbursed through the War Department under the direction of General Alfred Terry, Dakota settlers receiving 75,000 pounds of flour and 25,000 pounds of bacon. Money and seed grain were distributed by various relief societies organized in Ohio, Indiana, and other Eastern States. The Chicago Board of Trade contributed \$1,479.50 in cash; the Detroit Chamber of Commerce, \$1,020; and the Detroit Relief Committee, \$500. By spring most of the needy had been provided with food, clothing, and seed grain and toward the middle of May the appeals for help ceased and crops were planted.<sup>26</sup>

The season of 1875 was excellent for crops and although grasshoppers devastated other areas, very few appeared in Dakota. Many counties in the Territory held harvest festivals during the autumn months to celebrate their good fortune. More produce was raised in 1875 than in the previous three years. In 1876 the crops promised splendid returns, and the grain that ripened early was harvested without loss. Late in July the grasshoppers came from the north in even greater numbers than in 1873 and 1874. They devoured the grain, corn, gardens, and most of the potato crop. About one-third of the small grain had already been saved and this, with what was left over from the previous year, was sufficient to keep the settlers from want. The grasshoppers remained in some localities for two weeks and left more eggs than ever before. Governor Pillsbury of Minnesota called a convention of the governors of the States and Territories suffering from grasshopper pests to meet at Omaha, Nebraska. Governor Pennington represented the Territory of Dakota, but the convention accomplished nothing of practical value.<sup>27</sup>

Early in January, 1877, reports came from sections of Dakota

<sup>26</sup> Files of the *Dakota Republican*, *Yankton Press and Dakotian*, *St. Paul Press*, *Fargo Times*, and *Northern Pacific Times*.

<sup>27</sup> *Dakota Republican*, Aug. 19, Sept. 11, 18, 1875; editorial on progress, Dec. 30, 1875; *Yankton Press and Dakotian*, Sept. 4, 1875; *Sioux City Times*, Sept. 11, 1875.

that many eggs had hatched during a warm spell and that the grasshoppers had been frozen by the cold weather that followed. The warm spring weather in April, however, showed that the destruction had not been complete and a feeling of great uneasiness prevailed. Under these circumstances Governor Pennington issued a proclamation asking that Friday, May 4, be observed throughout the Territory as a day of humiliation, fasting, and prayer. The proclamation was generally observed, banks and business houses suspending work.<sup>28</sup> The prairies were ordered burned carefully to destroy as many eggs as possible. About the middle of May a small red bug, first noticed in 1874, is said to have appeared in large numbers and destroyed the remaining eggs and the young grasshoppers that were hatched.<sup>29</sup>

The crops of 1877 were good and a report sent out by the territorial governor said in part: "We are now in the midst of the harvest in Dakota and it is safe to say that the yield for the small grain crops will be far the largest ever gathered in the territory. There has been no damage from grasshoppers."<sup>30</sup> The good crops of 1877 and 1878 paved the way for the "Great Dakota Boom" that occurred from 1879 to 1886 and the farmers of Dakota were not seriously bothered again by grasshoppers during the territorial period.

The grasshoppers or locusts that inflicted the damage to the crops of Dakota in the territorial period were of the grassland species and were called migratory or seventeen year locusts. They were very different from the ordinary grasshopper, being darker in color, with a larger and harder frame and were better adapted to flying. Although lighter in weight the migratory locust was tough and difficult to kill.<sup>31</sup> The young insects usually passed over the Dakota region flying northward in May and June when the weather was clear with a light wind from the

<sup>28</sup> *Dakota Republican*, Jan. 14, Apr. 24, May 3, 17, 1877; *Bismarck Tribune*, May 15, 1877.

<sup>29</sup> Kingsbury, *Dakota Territory*, 2:1027-1028. Although the appearance of the red bug is reported by several newspapers its effectiveness in eliminating grasshoppers and their eggs may be questioned.

<sup>30</sup> *Report of the Territorial Governor to the Commissioner of Agriculture*, July 30, 1877, p. 1-2.

<sup>31</sup> "The Grasshopper and Its Ranges," *U. S. Executive Documents*, 1875, 1:33-34.



south. They seldom alighted during this season of the year. Even the insects hatched from eggs left the summer before were not especially destructive and usually flew northward as soon as their wings developed. They seemed to wait for favorable winds. Whether the northward movement was due to instinct or to the prevailing currents of wind from the south in May and June was a question never definitely decided. In July the "hopper" current seemed to change and the full-grown insects flew southward during the rest of the summer. The locusts did not always alight, their action being partly dependent upon weather conditions. Hot wet weather served to check the plagues while dry weather, either hot or cool, seemed to favor them. A head wind, a calm, clouds, or a storm usually caused them to descend. Only the insects flying southward in July and August ate the crops and laid eggs.<sup>32</sup>

Much time and money were expended in attempts to destroy the destructive locusts and numerous methods were recommended and employed. Several counties paid fifty cents a bushel for the dead insects and those brought in were burned at night in great bonfires in the village streets. The insects were crushed with rollers and other implements or caught in bags or traps during the mating season, at which time they were inactive and stupid. Spots conducive to the hatching of eggs were thoroughly harrowed in the fall, and fields were often carefully burned in the early spring. Loose straw was sometimes placed near the hatching places and was fired at the proper time. Ditches were dug around fields with deep pits placed at intervals. There was a liberal use of tar and oil while some even resorted to loud noises and yelling to frighten the insects away. Poisoned bait was perhaps the most effective means of checking them. Breaking the sod, the favorite breeding place, tended to keep down the number while the extension of tillage helped reduce the proportional damage done to any unit area.<sup>33</sup>

<sup>32</sup> "A History of Grasshoppers in Clay County," *Dakota Republican*, May 17, 1877.

<sup>33</sup> Visser, *Geography of South Dakota*, 118; Territorial newspaper files; *Farm and Factory* (St. Paul, Minn.), June 1-29, 1877; *Northwestern Miller* (Minneapolis), May 4, 1877, Apr. 19, Nov. 2, 1878.

The grasshopper plagues profoundly affected the growth and delayed the development of the Territory of Dakota. The number of settlers who left the Territory during and after the attacks was large as compared with the total population. If funds had been available the number would have been much larger. As the exodus tended to be selective, the farmers who remained were a hardy group. The proportion of foreign-born was increased as a large percentage of those who left were native Americans. The plagues also gave Dakota a bad reputation and discouraged immigration to the Territory. Eastern newspapers and magazines told colorful and often exaggerated tales of the hardships experienced and were inclined to call the insects "Dakota grasshoppers."<sup>34</sup>

The discontinuance of the activity of the locusts was always marked by a rapid influx of settlers. Governor A. J. Faulk in his message of December 4, 1866, bemoaned the loss of population and the lack of immigration and made an ardent plea for new settlers. In his message a year later he stated that the population of Dakota had more than doubled during the past year.<sup>35</sup> By December, 1868, it was reported to have doubled again. The records of the Federal Land Office show the decline of grasshopper depredations in the seventies. For the fiscal year ending June 30, 1877, 212,556 acres of land were filed upon at the various Dakota land offices, while the amount for the following year was 1,377,948 acres.<sup>36</sup>

Another effect of the grasshopper plagues was the impetus it gave to changes in farming methods. Greater care was taken in the preparation of the land while varieties of plants and crops better suited to the climate and less apt to be consumed by the locusts were planted. Rotation and diversification of crops received greater attention while mixed farming replaced "pure" or "straight" farming. More livestock was raised and dairying became more important than formerly.<sup>37</sup> An eastern observer

<sup>34</sup> Visher, *Geography of South Dakota*, 157-158; files of Territorial newspapers.

<sup>35</sup> *Messages of the Territorial Governor*, Dec. 4, 1866, Dec. 2, 1867, Dec. 7, 1868.

<sup>36</sup> *Reports of the General Land Office* (Washington, D. C.), 1877:172-173; 1878:150-151.

<sup>37</sup> Visher, *Geography of South Dakota*, 158-159.

writing in 1876 made the following comments: "The only serious drawback to agriculture in Dakota seems to be the migratory insect or locust that come in swarms in June or early July and devour the crops. The best protection against these insects is fall ploughing, early seeding and the cultivation of crops least likely to be injured by them. Mixed farming with the raising of livestock and some dairying will assist the Dakota farmer in overcoming this serious menace."<sup>38</sup>

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<sup>38</sup> *Annual Cyclopedia* (New York), 1876:218.

## THE SOURCE LITERATURE OF EARLY PLANT INTRODUCTION INTO SPANISH AMERICA

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There is no body of literature, as such, relating to early plant introduction into America, but a search of the extensive historical literature of Spanish America has shown that many little-known authors, from the sixteenth century onward, have made more or less important contributions to the subject. In the following pages an attempt is made to assemble for the first time some of these scattered references. Most of the works cited are to be found in the Bancroft Library of the University of California, and the scope of this inquiry has been largely determined by the resources of that collection. In the following lists the names of some 147 species and varieties of alien cultivated plants encountered in the examination of a vast collection of historical documents have been arranged into five groups as follows: field crops, fruit and nut crops, truck crops, herb and medicinal crops, and ornamental plants. The plants comprising each of these groups have been listed alphabetically according to their English names, the English name in each case being the generally accepted equivalent of the foreign name of the period. Scientific names have been included in all instances in which the botanical identity of the plant is thought to have been established with reasonable certainty. The numbers in parentheses following the plant names refer to the items in the alphabetically-arranged bibliography which concludes the paper. In general, the number of citations following each name indicates the relative frequency of occurrence of that name in the literature, but the aim has been to select those works which offer definite contributions to the knowledge of plant introduction or subsequent dispersion, rather than to include all references encountered regardless of historical significance. In some instances, however, a book has been cited

because it has contained reference to the varietal identity of a plant not previously recorded.

## FIELD CROP INTRODUCTIONS

- alfalfa, *Medicago sativa* L. (16, 33).  
 barley, *Hordeum vulgare* L. (1, 2, 9, 15, 17, 26, 33). Introduction by Christopher Columbus, recorded in his letter to the Spanish sovereigns, dated Isabella, Jan. 30, 1494. Cited by M. de la Puente, p. 400 (33).  
 barley, *Hordeum vulgare pallidum typica* Ser., var. Coast (18).  
 bean (broad), *Vicia faba* L. (1, 2, 4, 15, 21, 33, 36).  
 bean (garbanzo), *Cicer arietinum* L. (1, 2, 3, 7, 9, 16, 21, 31, 37).  
 bean (bastard chick-pea). (21).  
 canary grass, *Phalaris* sp. (16, 33).  
 clover (Trebol). (10, 15, 33).  
 coffee, *Coffea arabica* L. (13, 16). First introduction by Dutch (6).  
 cotton, *Gossypium* sp. (2, 9, 16, 24, 28, 33, 35). Introduction in 1517 (3, 33).  
 flax, *Linum usitatissimum* L. (10, 15, 35, 36). 1514 introduction (3); 1520 introduction (33). Oil type introduction (10).  
 hemp, *Cannabis sativa* L. (8, 33, 36). 1520 introduction (3).  
 indigo, *Indigofera* sp. (36).  
 lentil, *Ervum lens* L. (1, 9, 16, 21, 31).  
 mustard. See herb crop list.  
 oat, *Avena byzantina* G. Koch (18).  
 oat, *Avena fatua* L. (18).  
 oat, *Avena sativa* L. (18).  
 oat, *Avena* sp. L. (16, 27).  
 pea, *Pisum sativum* L. (1, 2, 15, 18, 36).  
 rice, *Oryza sativa* L. (10, 15, 16, 17, 20, 35). 1512 introduction (33).  
 rye, *Secale cereale* L. (2, 33).  
 sesame, *Sesamum orientale* L. (16, 29). 1520 introduction (3).  
 sugar cane, *Saccharum officinarum* L. (1, 9, 15, 17, 21, 28, 30). 1493 introduction from Canary Islands by Christopher Columbus, recorded in a letter from Columbus to the Spanish sovereigns, dated Isabella, Jan. 30, 1494. Cited by M. de la Puente (33). Mention in 1511 (2). First manufacture in the New World in 1517 (3, 29). Introduction to Rio de la Plata by Don Pedro Mendoza (33).  
 vetch, *Vicia* sp. (1, 2).  
 wheat, *Triticum* sp. (1, 2, 3, 7, 8, 9, 10, 11, 13, 15, 16, 17, 19, 21, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37). 1493 introduction by Christopher Columbus (33).  
 wheat (three months). Introduced in 1509 and 1511 (3).  
 wheat (bearded). (25, 30).  
 wheat (white). (30).  
 wheat (Blanquito). (27).  
 wheat, *Triticum vulgare graecum* Keke. var. Propo (18).  
 wheat, *Triticum vulgare albidum* Al. (18).  
 wheat, *Triticum compactum humboldtii* Keke. var. Little Club (18).  
 wheat, *Triticum compactum erinaceum* Keke. var. California Club (18).  
 Extensive lists of seeds and growing plants of various field and truck crops, fruits, herbs and ornamental plants, brought to Monterey, California, from France in 1798, are to be found in the Voyages of Lapérouse (22).

## FRUIT AND NUT CROP INTRODUCTIONS

- almond, *Prunus communis* Fritsch. (1, 16, 33). Introduction of growing plants in 1520 (5).
- apple, *Pyrus Malus* L. (1, 6, 21, 27, 33, 36).
- apricot, *Prunus Armeniaca* L. (1, 6, 10, 21, 27, 33).
- banana, *Musa* sp. (28, 33, 36). Oviedo (28 or 29) states that the banana was taken from the Canary Islands to Santo Domingo in 1516 by Father Thomas of Berlangas, from whence it was introduced to the other islands and to the mainland. See "plantain" below.
- cherry, *Prunus* sp. (1, 6, 12, 15, 33).
- chestnut, *Castanea* sp. (33).
- citron, *Citrus medica* L. (1, 28, 33).
- coconut, *Cocos nucifera* L. (36).
- date, *Phoenix dactylifera* L. First introduction (28).
- fig, *Ficus carica* L. (1, 6, 9, 15, 16, 18, 21, 28). Introduction in 1520 (5).
- fig (variety Godens or Bugarotes). A large black variety; some with red, some with black seeds (29).
- grape, *Vitis vinifera* L. (1, 2, 6, 7, 8, 9, 15, 18, 28, 34, 36). Introduction in 1493; noted in memorandum sent by Columbus with Antonio Torres to the Spanish sovereigns in 1494; cited by M. de la Puente (33). Introduction in 1531; recorded in the Archives of the Casa de Contratacion, Archives of the Indes, 148-2-2; cited by M. de la Puente (33), p. 391. The latter introduction went to Vera Cruz and Mexico City.
- grape, *Vitis vinifera* L. vars. Alba, Albilla, Molar, Torrontes, and Muscat (27). var. Muscat (15, 21).
- grapefruit, *Citrus maxima* Merr. (33).
- jujube, *Zizyphus* sp. (33).
- lemon, *Citrus Limonia* Osbeck (1, 10, 28, 33). vars. Royal, Fragrant or Centies, and Sweet (10). For introduction into Tahiti, see *Cook's Voyages*, by A. Kippis, 1:31 (4th ed. Chiswick, 1826).
- lime, *Citrus aurantifolia* Swingle (1, 9, 15, 28, 33). vars. Sweet and Sour (10). For introduction into Tahiti by Captain Cook, see above.
- medlar, *Mespilus germanica* L. (33).
- mulberry, *Morus* sp. (1, 21, 33).
- nectarine, *Prunus Persica* Sieb. & Zucc. var. *nucipersica* Schneid. (1).
- olive, *Olea europaea* L. (1, 5, 9, 10, 15, 16, 18, 20, 27, 28, 34). Introduction in 1520 of 250 living olive plants and 1,200 slips from Olivares, near Seville in the Aljarafe district (5). Introduction in 1531 to Vera Cruz and Mexico City (3). Introduction into Peru in 1560 by Don Antonio de Rivera; cited by Cobo (10) and by M. de la Puente (33). First Chilean introduction (7). San Diego (20).
- orange, *Citrus sinensis* Osbeck (1, 9, 10, 14, 15, 21, 28, 33, 35, 36). First planting in continental America in 1518 (14). For introduction into Tahiti, see *Cook's Voyages*, by A. Kippis, 1:31 (4th ed. Chiswick, 1826).
- orange, sour or Seville, *Citrus aurantium* L. (10, 28).
- orange, large fruited. Direct importation from Asia (33).
- orange, Cagels or thick skinned (10).
- peach, *Prunus Persica* Sieb. & Zucc. (1, 7, 9, 18, 21, 27, 36). Var. Melocotone (1, 6, 10). Var. Priscos (1).
- pear, *Pyrus communis* L. (1, 6, 21, 27, 33, 36).
- pear, *Pyrus communis* L. var. Bergamont (10).
- plantain (African banana), *Musa paradisiaca* L. (10, 28, 33). From Canary Islands in 1516 (28).
- plum, *Prunus domestica* L. (1, 6, 9, 12, 17, 33, 36). Introduction of growing plants in 1520 (5).



pomegranate, *Punica Granatum* L. (1, 7, 9, 15, 21, 28, 36). Introduction of growing plants in 1520 (5).  
 quince, *Cydonia oblonga* Mill (1, 7, 21,

27, 28 or 29, 33). Introduction of growing plants in 1520 (5).  
 stone fruits, "nearly all of them" (33).  
 walnut (English or Persian), *Juglans regia* L. (?) (21, 33).

## TRUCK CROP INTRODUCTIONS

artichoke, *Cynara scolymus* L. (12, 15, 16). Introduction in 1520 (3).  
 asparagus, *Asparagus officinalis* L. var. *altilis* L. (15).  
 beet, *Beta vulgaris* L. (1, 10, 15, 33).  
 cabbage, *Brassica oleracea* L. (1, 21, 31). Var. *White* (21).  
 calabash or gourd, *Lagenaria leucantha* Rusby (2). This reference to the gourd by Anghiera in 1511 may refer to the American calabash, *Crescentia cujele* L.  
 cardoon, *Cynara Cardunculus* L. (12).  
 carrot, *Daucus carota* L. var. *sativa* D. C. (1, 15, 18).  
 chicory, *Chicorium Intybus* L. (1).  
 chive, *Allium Schoenoprasum* L. Introduction in 1520 (3).  
 cucumber, *Cucumis sativus* L. (2).  
 endive, *Chicorium endivia* L. (1, 15).  
 eggplant, *Solanum Melongena* L. (1, 10).  
 garlic, *Allium sativum* L. (1, 12, 21).  
 leek, *Allium Porrum* L. (12, 21).  
 lettuce, *Lactuca sativa* L. (1, 2, 10, 15, 21, 31, 36).

melon, *Citrullus vulgaris* Schrad. (Watermelon). (18, 21, 31). For introduction into Tahiti, see *Cook's Voyages*, by A. Kippis, 1:31 (4th ed. Chiswick, 1826).  
 melon, *Cucumis* sp. (muskmelon, casaba). (1, 2, 6, 15, 21, 31, 37).  
 mustard. See herb crop list.  
 onion, *Allium cepa* L. (1, 12, 21). Introduction of bulbs in 1520 (3).  
 pea, *Pisum sativum* L. (1, 2, 18).  
 parsnip, *Pastinaca sativum* L. (1).  
 radish, *Raphanus sativus* L. (1, 2, 15). Introduction in 1520 (3).  
 rape, *Brassica Napus* L. (1).  
 rhubarb, *Rheum Rhaponticum* L. (24).  
 spinach, *Spinacia oleracea* L. (1, 10, 15).  
 sorrel, *Rumex* sp. (12).  
 turnip, *Brassica Rapa* L. (1, 12, 38). Introduction in 1520 (3). Wild turnip (27).  
 water-cress, *Roripa Nasturtium-aquaticum* Hayek. (12). Introduction in 1520 (3).

## HERB AND MEDICINAL CROP INTRODUCTIONS

anise, *Pimpinella Anisum* L. (15, 16, 21).  
 basil, *Acinum Basilicum* L. (10, 33).  
 borage, *Borago officinalis* L. (1, 2, 10, 12).  
 camomile, *Anthemis nobilis* L. (10, 15, 33).  
 caraway, *Carum Carvi* L. (15).  
 cinnamon, *Cinnamomum zeylanicum* Breyn. (16).  
 coriander, *Coriandrum sativum* L. (15, 16). Introduction in 1520 (3).  
 cumint, *Cuminum Cyminum* L. (15).

fennel, *Foeniculum vulgare* L. (15, 16).  
 lemon balm, *Melissa officinalis* L. (10, 33).  
 marjoram, *Origanum vulgare* L. (1, 10, 15, 33).  
 mint, *Mentha Pulegium* L. (pennyroyal). (10, 15, 21).  
 mustard, *Brassica nigra* Koch. (15, 18, 21). Introduction in 1520 (3). Wild (27).  
 nightshade, *Solanum* sp. (1).  
 parsley, *Petroselinum hortense* Hoffm. (1, 15). Introduced in 1520 (3).

- peppermint (hierba buena), *Mentha piperita* L. (10, 33).  
 pudding-pipe tree, *Cassia Fistula* L. (29, 33).  
 rosemary, *Rosmarinus officinalis* L. (10, 33). Introduced in 1520 (3). Introduced into Peru in 1579 by Don Alinso Gutierrez (10, 33).  
 saffron, *Crocus sativus* L., or *Carthamus tinctorius* L. (1).  
 Santa Maria (an aromatic plant). (10, 33).  
 thyme, *Thymus vulgaris* L. (10, 33).  
 "Introduction of seeds of pot herbs of every kind" to Antigua de Darien from Seville in 1514 (3).

#### ORNAMENTAL PLANT INTRODUCTIONS

- bamboo, *Phyllostachys* sp. (18).  
 broom, *Cytisus* sp. (33).  
 carnation, *Dianthus* sp. L. (15). Vars. red, pink spotted with red, white, and marisalda (10).  
 china tree, *Melia Azedarach* L. (?) (21).  
 daffodil, *Narcissus Pseudo-Narcissus* L. (10, 33).  
 gilliflower or stock, *Mathiola incana* R. Br. Vars. white, yellow, purple, light red, and dark red (10, 33). Introduced in 1601 (10).  
 iris, *Iris* sp. (10, 33). Var. dark purple (10).  
 jasmine, *Jasminum* sp. (15).  
 larkspur (espuela de galau), *Delphinium* sp. (10, 33).  
 lavender, *Lavandula Spica* L. (15).  
 lily, *Lilium* sp. L. (15, 35). Var. white (10, 21).  
 mallow (large or mad mallow), *Malva* sp. *Lavatera* sp., or *Althaea* sp. (10, 33).  
 osier, *Salix* sp. (46). Introduced in 1505 (3, 33).  
 plane tree, *Platanus* sp. Several varieties, including those of Guinea (33).  
 poppy, *Papaver* sp. (10, 15, 33).  
 rose, *Rosa* sp. (10, 20, 33, 35). Introduced as a growing plant in 1520 (3). Introduced into Peru in 1520 (3). Var. white musk (10, 15, 33). Var. Castillian (21, 33).  
 tamarind, *Tamarindus indica* L. Direct importation from Asia (33), p. 410 (21).

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The despatches of Hernando Cortes . . . Written in Segura de la Frontera, Oct. 30, 1522, and addressed to Emperor Charles V. Translated into English from the original Spanish by G. Folsom. 431 p., illus. New York, Wiley & Putnam. 1843.
13. Diario de México . . . t. 1-17 (núm. 1-2617): 1. Oct. 1805-30 Nov. 1812. [Mexico], Impr. de Doña María Fernandez Jauregui [etc.] 1805-12.
14. DÍAZ DEL CASTILLO, BERNAL.  
The true history of the conquest of New Spain. Edited and published in Mexico by Genaro García. Translated into English, with introduction and notes, by Alfred Percival Maudslay . . . 5 v. London, Printed for the Hakluyt Society. 1908-16.  
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15. GARCILASO DE LA VEGA, *el Inca*.  
First part of the Royal commentaries of the Yncas. Translated and edited, with notes and an introduction, by Clements R. Markham . . . v. [41], [45]. London, Printed for the Hakluyt Society. 1869-71.  
First edition, Lisbon, 1609.
16. Gazetas de Mexico.  
Compendio de noticias de Nueva España desde principios del año de 1784.  
44 v. Mexico. 1784-1821.
17. GÓMARA, FRANCISCO LÓPEZ DE.  
Historia de Mexico . . . 349 numb. 1. [22] p. En Anvers, En casa de Iuan Steelsio. 1554.

18. HENDRY, GEORGE W.  
The adobe brick as a historical source. *Agricultural History* 5:110-127. July, 1931.
19. HERNÁNDEZ, FRANCISCO.  
Nova plantarvm, animalivm et mineralivm mexicanorvm historia . . . primum compilata, dein a Nardo Antonio Reccho, in volumen digesta, a Io. Terentio, Io. Fabro, et Fabio Colvmna Lynceis notis, & additionibus longe doctissimis illustrata. 950 p., illus. Romae, Vitale Mascardi. 1651.
20. HUMBOLDT, ALEXANDER, *freiherr* von.  
Political essay on the kingdom of New Spain . . . Translated from the original French by John Black . . . 4 v. London, Longman, Hurst, Rees, Orme, and Brown [etc.] 1811-22.
21. KINO, EUSEBIO FRANCISCO.  
Kino's historical memoir of Pimería Alta; a contemporary account of the beginnings of California, Sonora, and Arizona, . . . 1683-1711; published for the first time from the original manuscript in the archives of Mexico; translated into English, edited and annotated, by Herbert Eugene Bolton . . . 2 v. Cleveland, Arthur H. Clark Co. 1919.
22. LAPÉROUSE, JEAN FRANÇOIS DE GALAUP, *comte* de.  
A voyage round the world, in the years 1785, 1786, 1787, and 1788 . . . published conformably to the decree of the National Assembly . . . and edited by M. L. A. Milet-Mureau . . . Translated from the French. 3 v. London, J. Johnson. 1798.
23. MOLINA, JUAN IGNACIO.  
Compendio de la historia geografica, natural y civil del reyno de Chile, escrito en italiano . . . 2 v. Madrid, A. de Sancha. 1788-95.
24. MONARDES, NICOLÁS.  
Primera y segvnda y tercera partes de la historia medicinal de las cosas que se traen de nuestras Indias Occidentales que siruen en medicina. 206 numb. 1 p., illus. Sevilla, Alonso Eseriuano. 1574.
25. MONTEMAYOR Y CÓRDOVA DE CUENCA, JUAN FRANCISCO DE, compiler.  
Spain. Laws, statutes, etc. Svmarios de las cedvlas, ordenes, y provisiones reales, que se han despachado por Su Magestad, para la Nueva-España, y otras partes; . . . Part 2. 3 pt. in 1 v. Mexico, Impr. de la viuda de B. Calderon. 1678.
26. NAVARRETE, MARTIN FERNANDEZ DE.  
Colección de los viages y descubrimientos que hicieron por mar los Españoles desde fines del siglo 15, con varios documentos inéditos concernientes á la historia de la marina castellana y de los establecimientos españoles en Indias, coórdinada é ilustrada . . . 5 v. Madrid, Imprenta real. 1825-37.
27. OVALLE, ALONSO DE.  
An historical relation of the kingdom of Chile. Translated out of Spanish into English [by a member of the Royal Society]. In Awnsham Churchill, editor, Collection of Voyages and Travels . . . v. 3, p. 1-138. London, 1752.  
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28. OVIEDO Y VALDÉS, GONZALO FERNÁNDEZ DE.  
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29. [OVIEDO Y VALDÉS, GONZALO FERDINÁNDEZ DE.]  
Della generale et natvrale historia delle Indie à tempi nostri ritrouate,  
libro primo. In G. B. Ramusio, Navigationi et viaggi. 3 v. Venetia.  
1550-74.
30. PALOU, FRANCISCO.  
Historical memoirs of New California. Translated into English from  
the manuscript in the archives of Mexico; edited by Herbert Eugene Bolton.  
4 v. Berkeley, Calif., University of California Press. 1926.
31. PICOLO, FRANCISCO MARIA.  
Informe del estado de la nueva christiandad de California, que pidio por  
auto, la Real audiencia de Guadaluara, obedeciendo a la Real cedula de N.  
Rey y Señor, D. Phelipe V. Fecha en Madrid, a 17 de Julio, de 1701. Guada-  
laxara. 1702.
32. PRESCOTT, WILLIAM HICKLING.  
History of the conquest of Peru; with a preliminary review of the civiliza-  
tion of the Incas. 2 v. Philadelphia, J. B. Lippincott & Co. 1874.  
First edition, New York, 1847.
33. [PUENTE Y OLEA, MANUEL DE LA.]  
La Casa de contratación. I, El retablo y sus retratos. II, Los trabajos  
geográficos (índice ó breve resumen). III, La celebración de su IV cente-  
nario en 1903. Por Manuel Ruiz del Solar y Uzuriaga [pseud.] 28 p., illus.  
Sevilla, Escuela tipográfica y librería Salesianas. 1900.
34. RECCHO, NARDO ANTONIO.  
Rervm medicarvm Novae-Hispaniae thesavrvs; sev, Plantarvm ani-  
malivm mineralivm mexicanorvm historia . . . Romae. 1651.
35. TORQUEMADA, JUAN DE.  
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archia indiana, . . . 3 v. Madrid, N. Rodriguez Franco. 1723.
36. VANCOUVER, GEORGE.  
A voyage of discovery to the North Pacific Ocean, and round the world;  
. . . performed in the years 1790, 1791, 1792, 1793, 1794, and 1795 . . . 3 v.  
London, G. G. and J. Robinson [etc.] 1798.
37. VENEGAS, MIGUEL.  
A natural and civil history of California . . . Translated from the original  
Spanish . . . published at Madrid, 1758. 2 v. London, J. Rivington and J.  
Fletcher. 1759.
38. XIMENEZ, FRANCISCO.  
Cuatro libros de la naturaleza y virtudes de las plantas y animales, de uso  
medicinal en la Nueva España . . . 342 p. México, Oficina tip. de la Sec-  
retaría de fomento. 1888.  
A translation of the author's *Rerum medicarum Novae Hispaniae the-  
saurus; seu, Plantarum, animalium, mineralium, mexicanorum historia.*  
First edition, México. 1615.

*University of California.*

## NEWS NOTES AND COMMENTS

### PENNSYLVANIA HISTORY

The first number of *Pennsylvania History*, the official quarterly of the new Pennsylvania Historical Association, was issued in January with the imprint of the University of Pennsylvania Press. It includes an address by Dr. Dixon Ryan Fox of Columbia University, in which the functions of State historical societies are discussed; an inventory of "Research Projects in Pennsylvania History," by Paul W. Gates; and "A Brief Bibliography of Pennsylvania History for High School Teachers," by Wayland F. Dunaway. The journal has sections devoted to the recent accessions of various depositories, news and comment, and book reviews and notices. With its initial number *Pennsylvania History* joins the front rank of our State historical magazines.

### THE PAPERS OF HENRY C. ADAMS

The State Historical Society of Wisconsin has recently acquired the papers of Henry C. Adams, for many years dairy and food commissioner, and from 1902 until his death in 1906, a member of Congress. The papers include information concerning his work in Washington on the Pure Food and Drugs Act, the New Mexico-Arizona statehood bill, and the Adams Act for increasing appropriations for agricultural colleges and experiment stations.

### RESEARCH ACTIVITIES

Mr. R. H. Allen of the College of Agriculture of the University of California has prepared a study of the economic aspects of the agricultural development of the Salinas Valley of California.

Professor Charles H. Ambler of West Virginia University has practically completed a volume on "George Washington and the West."

Dr. Leland D. Baldwin of the Western Pennsylvania Historical Survey is engaged in writing a history of the Whiskey Insurrec-

tion. His aim is to consider more fully than others have done "the social and economic background of the movement and to try to evaluate its place in the development of the country."

Professor James E. Boyle of the New York State College of Agriculture, Cornell University, is spending three months in New Orleans while completing a history of the New Orleans Cotton Exchange.

Professor Solon J. Buck has a volume in preparation on the history of Western Pennsylvania to 1815. He is emphasizing social and economic aspects.

Professor Harry J. Carman's second volume of his *Social and Economic History of the United States; The Rise of Industrialism, 1820-1875* is announced for publication by D. C. Heath & Company.

Professor M. P. Catherwood of the department of agricultural economics and farm management of the New York State College of Agriculture of Cornell University has made a historical study of rural taxation in a number of New York counties over a period of about thirty years. A very detailed investigation of county, town, and school district taxes, other income, and expenditures for Tompkins County for more than a century is included.

Professor M. M. Cleworth of the Northern State Teachers College, Aberdeen, South Dakota, has announced a course on the Rural History of the United States for the next school year.

Dr. Ira J. Condit, associate professor of subtropical horticulture at the University of California branch of the College of Agriculture in Southern California at Los Angeles, gave a course on the history of fruit culture during the first semester of 1933-34. The subject was treated chronologically and the authors of horticultural treatises received special attention.

Professor Paul W. Gates of Bucknell University has been awarded the David A. Wells prize of \$500 by the department of economics, Harvard University, for his essay, "The Illinois Central Railroad and Its Colonization Work." The monograph will appear in the Harvard Economic Series. Two of Dr. Gates's articles on this subject appeared in *Agricultural History*. See *ante*, 5:57-76 (April, 1931), and 6:14-25 (January, 1932).

Miss Bertha Hamilton is completing a study of the "Colonizing of Pennsylvania, 1682-1701," as her doctoral dissertation at the University of Wisconsin. She "is primarily concerned with the social and economic side of Pennsylvania during the period given, with an introductory chapter on the racial strains introduced and the general development west of the Delaware before the grant to William Penn." Special attention is being given to the early homes, the methods of clearing the land, and the development of trades and crafts. Miss Hamilton has also begun a study of the Pennsylvania land system.

Mr. Frederick Miller is preparing a doctoral dissertation at the University of Pennsylvania on "Agriculture in Colonial Pennsylvania."

Professor Louis Bernard Schmidt's article on "Liberal Studies in Industrial Science Education," appears in *Midland Schools*, 48:84-85, 96 (November, 1933).

Mr. A. C. Seyfarth, assistant advertising manager of the International Harvester Company, 606 South Michigan Avenue, Chicago, has compiled a history of the tractor industry, including data from all of the pioneers in the industry.

Professor St. George L. Sioussat of the University of Pennsylvania is preparing a paper on "George Washington and the Soldiers' Lands: An Unfinished Chapter in the Washington Biographies."

Dr. Henry Tatter's doctoral dissertation at Northwestern University, completed under the guidance of Professor I. J. Cox in 1933, is a study of "The Preferential Treatment of the Actual Settler in the Primary Disposition of the Vacant Lands in the United States to 1841." An abstract reprinted from *Summaries of Ph.D. Dissertations*, 1:89-95 (1933), has recently been issued. Complete typewritten copies of the dissertation are accessible at the Deering Library of Northwestern University, Evanston, Illinois.

Mr. Edwin C. Voorhies and Miss Alice V. Williams of the University of California are engaged in a study of the economic history of the California livestock industry.



## BOOKS ON AMERICAN AGRICULTURE

Charles A. Beard, ed., *A Century of Progress* (New York, Harper & Bros. 1933. 452 p.), especially the following essays: "The Idea of Progress," by Charles A. Beard; "Agriculture," by Frank O. Lowden.

A. F. Burns, *Production Trends in the United States since 1870* (New York, 1934. 363 p.), issued by the Natl. Bur. Econ. Research as its *Publication 23*.

Ellis Merton Coulter, *A Short History of Georgia* (Chapel Hill, N. C., Univ. N. C. Press, 1933. 457 p., illus.).

Ralph B. Flanders, *Plantation Slavery in Georgia* (Chapel Hill, N. C., Univ. N. C. Press, 1933. 336 p.).

L. O. Howard, *Fighting the Insects* (New York, Macmillan Co., 1933. 333 p.), reviewed by Florence Finch Kelly in the *New York Times Book Review*, March 26, 1933, p. 9.

George Rainey, *The Cherokee Strip* (Enid, Okla., The Author, 1933. 514 p.).

Ruth Scarborough, *The Opposition to Slavery in Georgia prior to 1860* (Nashville, Tenn., George Peabody College, 1933. 275 p.).

Charles S. Sydnor, *Slavery in Mississippi* (New York, D. Appleton-Century Co., 1933. 283 p.).

Virginia; *Economic and Civic* (Richmond, Va., Whittet & Shepperson, 1933. 427 p., maps), prepared in the Virginia Polytechnic Institute in collaboration with the Virginia State Chamber of Commerce and edited by R. Lee Humbert. Note especially ch. 3, Elements of Natural Environment; ch. 5, Forests and Forestry; ch. 7, Agriculture; ch. 11, Transportation; ch. 12, Markets and trade areas.

## ARTICLES ON AMERICAN AGRICULTURE

Among the recent articles of interest to readers of *AGRICULTURAL HISTORY* are the following: Harold E. Briggs, "The Development and Decline of Open Range Ranching in the Northwest," *Miss. Valley Hist. Rev.*, 20:521-536 (March, 1934); Barnard Ellinger, "The Cotton Famine of 1861-4," *Econ. Hist.*, 3 (9):152-167 (January, 1934); W. O. Henderson, "The Cotton Famine on the Continent, 1861-5," *Econ. Hist. Rev.*, 4:195-207 (April, 1933); Curtis Nettels, "The Origins of Paper Money in the English Colonies," *Econ. Hist.*, 3 (9):35-56 (January, 1934).

Louisiana: H. W. Gilmore, "Social Isolation of the French Speaking People of Rural Louisiana," *Social Forces*, 12:78-84 (October, 1933).

Nebraska: E. H. Hinman and J. O. Rankin, "Farm Mortgage History of Eleven Southeastern Nebraska Townships, 1870-1932," *Nebr. Agr. Expt. Sta., Lincoln, Research Bul.* 67, 67 p. (1933).

Oregon: Amos Burg, "A Native Son's Rambles in Oregon," *Natl. Geogr. Mag.*, 65:173-234, illus. (February, 1934).

Pennsylvania: Arthur Cecil Bining, "A Selected Bibliography of Secondary Works on Pennsylvania History," *Pa. Libr. Notes*, 13:355-370 (October, 1933); Wayland Fuller Dunaway, "A Brief Bibliography of Pennsylvania History for High School Teachers," *Pa. Hist.*, 1:38-46 (January, 1934); Paul W. Gates, "Research Projects in Pennsylvania History," *ibid.*, 1:15-27.

Washington: Rex E. Willard and Neil W. Johnson, "Present Land Uses—Washington; Types of Farming Series, Part 1," Wash. Agr. Expt. Sta., Pullman, *Bul.* 288, 40 p., maps (October, 1933).

Wisconsin: W. P. Mortenson, H. H. Erdman, and J. H. Draxler, "Wisconsin Farm Prices, 1841 to 1933," Wis. Agr. Expt. Sta., Madison, *Research Bul.* 119, 80 p. (November, 1933).

#### ARTICLES AND BOOKS ON CANADIAN AGRICULTURE

General or unclassified: William Allen, "Types of Farming in Canada," *Sci. Agr.*, 13:613-624, map (June, 1933), including geographical and historical notes; Clarence Eugene Koeppe, *The Canadian Climate* (Bloomington, Ill., McKnight & McKnight, 1931. 280 p., illus.), reviewed by Charles F. Brooks in *Geogr. Rev.*, 23:690-691 (October, 1933); E. L. Chicanot, "A Composite Picture of Canadian Farming," *Empire Rev.* (386):156-160 (March, 1933), concerning the progress of agricultural improvements and civilization in Canada; Blodwen Davies, *The Story of Agriculture* (Toronto, Ryerson Press. 31 p.), a Ryerson Canadian History reader, edited by Lorne Pierce; W. M. Drummond, "The World Wheat Situation," *Canad. Forum*, 13:127-129 (January, 1933), concerning the recent changes in supply and demand in relation to wheat; Basil Fuller, "Bees Migrate to Canada," *Empire Rev.* (384):46-48 (January, 1933), concerning the production of honey in Canada; Montague Leyland Hornby, *A Plan for British Community Settlements in Canada* (Lethbridge, Alberta, The Author, 1931. 45 p.); Duncan Alexander MacGibbon, *The Canadian Grain Trade* (Toronto, Macmillan Co., 1932. 503 p.), reviewed by John Perry Pritchett in *Miss. Valley Hist. Rev.*, 20:149 (June, 1933); Hugh Mackenzie Morrison, "The Principle of Free Grants in the Land Act of 1841," *Canad. Hist. Rev.*, 14:392-407 (December, 1933); E. Reid, "Effect of the Depression on Canadian Politics," *Amer. Polit. Sci. Rev.*, 27:455-465 (June, 1933).

British Columbia: Edward Fitz-Gerald Fripp, *The Outcasts of Canada: Why Settlements Fail: A True Record of "Bull" and Bale-Wire* (Edinburgh and London, W. Blackwood & Sons, 1932. 333 p.), concerning postwar emigration to Canada and the difficulties confronting the immigrants, with special attention to the fruit-growing country of British Columbia; J. Monroe Thorington, "The Historical Geography of the Columbia-Kootenay Valley," *Geogr. Soc. Philadelphia, Bul.*, 31:10-26, illus. (1933).

Ontario: John Henderson, *Ontario: the Story of a Great Province of Canada* . . . assisted by Frank Fairbrother, with an introduction by the Hon. G. Howard Ferguson (Toronto, Macmillan Co. of Canada, 1931. 213 p.), including material on transportation, mining, forestry, and agriculture; "Ontario Agricultural College, Guelph, Ontario," *Municipal Review of Canada*, 28 (11):9-12; (12):8-12 (November-December, 1932); Benoit Rambaud, *Grignon au Canada: Compte Rendu du Voyage* (Seine-et-Oise, l'Association Amicale des Anciens Elèves de Grignon, 1930. 115 p.), concerning the findings of a commission in Ontario and Quebec from L'Ecole Nationale d'Agriculture de Grignon.

Prairie Provinces: W. D. Albright, "Gardens of the Mackenzie," *Geogr. Rev.*, 23:1-22 (January, 1933); G. E. Britnell, "Economic Conditions in Rural Saskatchewan," *Canad. Forum*, 14:209-211 (March, 1934); Frank Burnett, "Memories



of a Struggle," *Canad. Mag.*, 79 (1):16, 40 (January, 1933), concerning pioneering in 1879 and the early 1880's; J. E. Haight, "Pioneer Days in the Rowland District [of Manitoba]," *Stories of Pioneer Days at Killarney*, p. 21-24 (Women's Inst. of Killarney, 1933); G. V. Haythorne, "Harvest Labor in Western Canada: An Episode in Economic Planning," *Quart. Jour. Econ.*, 47:533-544 (May, 1933), the problem of labor for harvesting; W. B. Hurd and T. W. Grindley, *Agriculture, Climate and Population of the Prairie Provinces of Canada: A Statistical Atlas Showing Past Development and Present Conditions* (Ottawa, Dominion of Canada, Bureau of Statistics, 1931. 102 p., 204 maps and diagrs.), reviewed by V. C. Finch in *Geogr. Rev.*, 22:502-503 (July, 1932); J. Montagnes, "Pushing back the Wheat Frontier," *Canad. Mag.*, 78:9 (August, 1932); Louis Rosenberg, "Jews in Agriculture in Western Canada," *The 100th Anniversary Souvenir of Jewish Emancipation in Canada*, p. 54-58 (Winnipeg, 1932); Georges Seulescio, *Coopératives et Ententes Agricoles pour la Vente du Blé* (Paris, Librairie de Jurisprudence Ancienne et Moderne Edouard Duchemin, L. Chauny et L. Quinsac, 1931. 190 p.), including the beginnings, structure, and organization of the wheat pools; Robert J. C. Stead, "The Old Prairie Homestead," *Canad. Geogr. Jour.* 7 (1):13-21 (July, 1933).

Quebec: Marius Barbeau, "An Early French Settlement on the Saint Lawrence," *Geogr. Soc. Philadelphia, Bul.*, 30:79-87, illus. (April, 1932), and his "Island of Orleans," *Canad. Geogr. Jour.*, 5:155-172, illus. (September, 1932), both articles being on the history, life, handicrafts, etc., of the inhabitants of the Island of Orleans; Oscar A. Beriau, "The Handicraft Renaissance in Quebec," *Canad. Geogr. Jour.*, 7:143-149, illus. (September, 1933); R. Blanchard, "Le Retour à la Terre au Canada Français: Résumé," *Jour. Économistes*, 103:522-524 (June, 1933); Firmin Letourneau, "L'Agriculture dans la Province de Quebec," *Sci. Agr.*, 13:659-667 (June, 1933); E. Z. Massicotte, "La Jardinage à Montréal dans le Bon Vieux Temps," *Bulletin Des Recherches Historiques* (Beauceville, Quebec), 38:394-399 (July, 1932).

#### BOOKS AND ARTICLES ON FRENCH AGRICULTURE

Marc Bloch, *Les Caractères Originaux de l'Histoire Rurale Française* (Oslo, H. Aschehoug & Co.; Paris, Les Belles Lettres; Cambridge, Mass., Harvard Univ. Press, 1931. 261 p., illus.), reviewed by G. Lefebvre in *Revue d'Histoire Moderne*, January, 1932; by A. Demangeon in *Annales de Géographie*, 41:233-241 (May, 1932); by H. J. F. in *Geogr. Jour.*, 79:529-530 (June, 1932); by Charles H. Taylor in *Amer. Hist. Rev.*, 37:736-737 (July, 1932); by R. H. Tawney in *Econ. Hist. Rev.*, 4:230-233 (April, 1933); by R. Boutruche in *Journal des Savants*, 31:200-209 (September, 1933); by H. Wopfner in *Historische Zeitschrift*, 149 (1):82-97 (1933).

Henri Cavaillès, *La Transhumance Pyrénéenne et la Circulation des Troupeaux dans les Plaines de Gascogne* (Paris, Armand Colin, 1931. 133 p., maps, bibliog.), and his *La Vie Pastorale et Agricole dans les Pyrénées des Gaves, de l'Adour et des Nestes* (Paris, Armand Colin, 1931. 415 p., illus., bibliog.).

Pierre Defontaine, *Les Hommes et Leurs Travaux dans les Pays de la Moyenne Garonne* (Lille, 1932. 462 p., illus.), reviewed in *Geogr. Rev.*, 23:175-176 (January, 1933).

Katharine W. D. Fedden, *Manor Life in Old France from the Journal of the Sieur de Gouberville, 1549-1562* (New York, Columbia Univ. Press, 1933. 228 p.).

Georges Lefebvre, ed., *Questions Agraires au Temps de la Terreur* (Strasbourg, F. Laing, 1932. 256 p.), reviewed by B. in *Amer. Hist. Rev.*, 39:403-404 (January, 1933).

Constantia Maxwell, *The English Traveller in France, 1698-1815* (London, Geo. Routledge & Sons, 1932. 302 p., illus.), reviewed by G. R. C. in *Geogr. Jour.*, 80:156 (August, 1932).

Hilda Rodwell Ormsby, *France: A Regional and Economic Geography* (New York, E. P. Dutton & Co., 1931. 515 p., maps), reviewed by Raoul Blanchard in *Geogr. Rev.*, 23:156-157 (January, 1933).

Paul Raveau, *Essai sur la Situation Économique et l'État Social en Pouton au XVI<sup>e</sup> Siècle* (Paris, Rivière, 1931. 107 p.).

Arthur Young, *Voyages en France en 1787, 1788 et 1789; première traduction complète et critique, par Henri Sée.* . . (Paris, A. Colin, 1931. 3 v., maps).

Articles: Paul-M. Bondonio, "Les Centres Sucreries Français au XVIII<sup>e</sup> Siècle," *Revue d'Histoire Économique et Sociale*, 19:27-76 (1931); Henri Calvert, "Subsistance et Fédéralisme," *Annales Historiques de la Révolution Française*, 8:229-238 (1931); Robert Faller, "La Situation Économique du Canton de Ribeauville à l'Époque du Directoire," *Revue d'Alsace*, 78:40-58, 195-208, 306-322 (1931); D. Faucher, "Le Mais en France," *Annales de Géographie*, 40:113-121 (1931); J. Ginot, "Contribution Historique à l'Étude de Noyer en Dauphiné," *Revue de Géographie Alpine*, 19:187-198 (1931); H. Hauser, "The Characteristic Features of French Economic History from the Middle of the Sixteenth to the Middle of the Eighteenth Century," *Econ. Hist. Rev.*, 4:257-272 (October, 1933); H. Hitier, "L'Évolution de l'Agriculture de la Manche en un Siècle, 1830-1930," *Journal d'Agriculture Pratique*, 56:309-311 (Oct. 17, 1931), and in *Comptes Rendus des Séances de l'Académie d'Agriculture de France*, 17:815-821 (Oct. 14, 1931); Louis Gottschalk, "The Peasant in the French Revolution," *Polit. Sci. Quart.*, 48:589-599 (December, 1933); C.-E. Labrousse, "Le Prix du Blé en France dans la Seconde Moitié du XVIII<sup>e</sup> Siècle," *Revue d'Histoire Économique et Sociale*, 19:133-210 (1931); M. Auge Laribe, "The Agricultural Crisis in France and Its Effects on the Peasant Class," *Internatl. Rev. Agr.*, 22:178-184 (June, 1931); G. Lefebvre, "Bulletin Historique: Histoire de la Révolution et de l'Empire," *Revue Historique*, 169:116-159 (1932), a résumé and critique of recent historical studies of the French Revolution and the Napoleonic Empire; L. Mazoyer, "Exploitation Forestière et Conflits Sociaux en Franche-Comté à la Fin de l'Ancien Régime," *Annales d'Histoire Économique et Sociale*, July, 1932; Albert Mirot, "Le Problème Historique des Prix: Prix de Grains et Prix de Rents en Grains," *Annales d'Histoire Économique*, 3:551-552 (Oct. 15, 1931); Frederick L. Nussbaum, "The Revolutionary Vergennes and Lafayette versus the Farmers General," *Jour. Modern Hist.*, 3:592-613 (December, 1931); Henri Sée, "The Economic and Social Origins of the French Revolution," *Econ. Hist. Rev.*, 3:1-15 (January, 1931); Edmond Soreau, "La Révolution Française et le Prolétariat Rural," *Annales Historiques de la Révolution Française*, 9:28-36, 116-127 (1932); "Le Sériculture et les Industries de la Soie dans le Pays Cévenol," *Bulletin de la Société Languedocienne de Géographie*, 1:79-86, 217-225 (1930-1931); Norman J. Ware, "The Physiocrats; A Study in Economic Rationalization," *Amer. Econ. Rev.*, 21:607-619 (December, 1931).

